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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/600,162	06/20/2003	Srinivasa Mpr	13943US01	9706

23446 7590 12/01/2006

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EXAMINER

DIEP, NHON THANH

ART UNIT PAPER NUMBER

2621

DATE MAILED: 12/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/600,162

Applicant(s)

MPR ET AL.

Examiner

Nhon T. Diep

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/17/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gatto et al (US 2006/0026637 A1), in view of Schoner et al (US 6,072,548).

Gatto et al discloses an interactive television devices and systems comprising the same a decoder for simultaneously displaying a plurality of video sequences, said decoder comprising: controller for executing a plurality of instructions; a memory for storing the plurality of instructions (fig. 8 and paragraph 0036), wherein said plurality of instructions cause the controller to perform operations (paragraph 0068) as specified in claims 1 and 6; wherein the compressed frame comprises a picture (fig. 3, el. 312-328) as specified in claims 2 and 7; wherein the decoding the at least one compressed frame from each of the plurality of video sequences occurs during one frame display period (fig. 3) as specified in claims 3 and 8; wherein the operations further comprise: indicating a frame to be displayed for each of the plurality of video sequences (fig. 8) as specified in claims 4 and 9; wherein the frame to be displayed for each of the plurality of video sequences further comprises a frame selected from a group consisting of the decoded at least one compressed frame from the video sequence, or the new past prediction frame for the video sequence (fig. 3) as specified in claims 5 and 10; wherein

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the plurality of videos comprises four videos and wherein the plurality of frame buffers further comprises four frame buffers (fig. 8) as specified in claim 12;. It is noted that Gatto et al does not particularly disclose the detailed process of decoding encoded individual MPEG video bit stream in combination of decoding multiple bitstreams simultaneously such as receiving at least one compressed frame from each of a plurality of video sequences; locating at least a past prediction frame in a memory for each of the plurality of video sequences; decoding the at least one compressed frame from each of the plurality of video sequences from the past prediction frame for each of the plurality of video sequences; and indicating a new past prediction frame and a new future prediction frame for each of at least one of the plurality of video sequences as claimed in claims 1, 6 and 11. Schoner et al teaches the process of decoding individual MPEG encoded bitstream, wherein references frame such as I and P frames, which are needed to decode other frames in the GOPs are stored (col. 8, ln. 45-57). Therefore, it would have been obvious to one of ordinary skilled in the art at the time the invention was made to have found it obvious that to display multiple video streams simultaneously as shown by Gatto et al, each individual MPEG video stream needs to be decoded and in order to decode each of these MPEG video stream, multiple memories are needed to store all reference or anchor frames for all bit streams and because Gatto et al has multiple bit streams, reference or anchor frames for each video stream, when stored, must be identified accordingly or means for storing a plurality of indicators, each of said plurality of indicators associated with a particular one of the plurality of videos, and

wherein each of said plurality of indicators referring to a particular one of the frame buffers. Doing so would help to correctly decode multiple bitstreams.

Regarding to claim 13: It would have been obvious to one of ordinary skilled in the art at the time the invention was made to have each buffer system for each decoder of each individual video stream and for any buffer system, a sub-buffers are needed to store reference or anchor frames as is indicated by Schoner et al for correctly decoding pictures.

Regarding to claim 14: Since video bit stream is often encoded at different source with different encoding parameters, different decoder for decoding each of said plurality of videos would be needed.

Regarding to claims 15-16: As reasoned above, a means of identifying or matching a buffer system to individual bitstream is needed and for each individual system, there is also a need to associate buffers for storing reference or anchor frames as taught by Schoner et al and as required by MPEG, when decoding any MPEG encoded bitstream, motion prediction has to be calculated to decode temporal redundancy and therefore, a means to identify motion vector from each individual bitstream must be in present for Gatto et al to properly function.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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a. Ludtke et al (US 6,501,441 B1) discloses a method of and apparatus for partitioning, scaling and displaying video and/or graphics across several display and devices.

b. Barger et al (US 6,058,141) discloses a varied frame rate video.

c. Wu et al (US 6,704,846 B1) discloses a dynamic memory arbitration in an MPEG-2 decoding system.

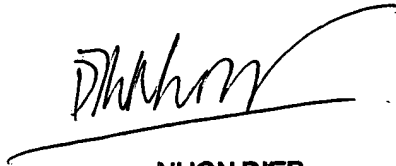
d. Bell et al (5,892,767) discloses systems and method for multicasting a video stream and communication network employing the same.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nhon T. Diep whose telephone number is 571-272-7328. The examiner can normally be reached on m-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ND
11/26/2006



NHON DIEP
PRIMARY EXAMINER